

B is phenyl, naphthyl,

5-membered hetaryl, containing one to four nitrogen atoms or one to three nitrogen atoms and one sulfur or oxygen atom or

6-membered hetaryl containing one to four nitrogen atoms; where the cyclic groups may carry one to four radicals R^a

R^a is halogen, cyano, nitro, hydroxyl, amino, carboxyl, aminocarbonyl, alkyl,

haloalkyl, alkenyl, haloalkenyl, alkenyloxy, haloalkenyloxy, alkynyl,

haloalkynyl, alkynyloxy, haloalkynyloxy, alkoxy, haloalkoxy, alkylthio,

haloalkylthio, alkylamino, dialkylamino, alkylcarbonyl, alkoxy carbonyl,

alkylcarbonyloxy, alkylaminocarbonyl, dialkylaminocarbonyl,

alkylcarbonylamino, alkoxy carbonylamino, alkylcarbonyl-N-alkylamino or

aloxycarbonyl-N-alkylamino, where the alkyl groups in these radicals

contain 1 to 6 carbon atoms and the alkenyl or alkynyl groups mentioned

in these radicals contain 2 to 8 carbon atoms;

cycloalkyl, cycloalkoxy, cycloalkylthio, cycloalkylamino, cycloalkyl-N-

alkylamino, heterocyclil, heterocycloxy, heterocyclithio,

heterocyclamino or heterocyclil-N-alkylamino, where the cyclic

systems contain 3 to 6 ring members and the alkyl groups in these

radicals contain 1 to 6 carbon atoms; unsubstituted or R^b-substituted

phenyl, phenoxy, phenylthio, phenylamino, phenyl-N-alkylamino,

phenylalkoxy, phenylalkylthio, phenylalkylamino, phenylalkyl-N-

alkylamino, hetaryl, hetaryloxy, hetarylthio, hetarylamino, hetaryl-N-

alkylamino, hetarylalkoxy, hetarylalkylthio, hetarylalkylamino and hetarylalkyl-N-alkylamino, where the hetaryl radicals contain 5 or 6 ring members and the alkyl groups in these radicals contain 1 to 6 carbon atoms, where

R^b is halogen, cyano, nitro, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy, C₁-C₄-alkylamino, di-C₁-C₄-alkylamino or C₁-C₄-alkyl thio ;

and/or one or two of the following radicals

- formyl,
- CRⁱⁱⁱ=NOR^{iv} where Rⁱⁱⁱ is hydrogen, alkyl, cycloalkyl or phenyl and R^{iv} is alkyl, alkenyl, haloalkenyl, alkynyl or phenylalkyl (where the alkyl groups mentioned contain 1 to 6 carbon atom and the cycloalkyl groups, alkenyl groups and alkynyl groups mentioned contain 3 to 8 carbon atoms),
- NR^v-CO-D-R^{vi} where R^v is hydrogen, hydroxyl, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₁-C₆-alkoxy, C₂-C₆-alkenyloxy, C₂-C₆-alkynyloxy, C₁-C₆-alkoxy-C₁-C₆-alkyl, C₁-C₆-alkoxy-C₁-C₆-alkoxy or C₁-C₆-alkoxycarbonyl, R^{vi} is hydrogen, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₃-C₆-cycloalkyl, C₃-C₆-cycloalkenyl, phenyl, phenyl-C₁-C₆-alkyl, hetaryl or hetaryl-C₁-C₆-alkyl and D is a direct bond, oxygen or nitrogen, where the nitrogen may carry one of the groups mentioned under R^v,

and/or where two adjacent carbon atoms of the cyclic systems may carry a C₃-C₅-alkylene, C₃-C₅-alkenylene, oxy-C₂-C₄-alkylene, oxy-C₁-C₃-alkyleneoxy, oxy-C₂-C₄-alkenylene, oxy-C₂-C₄-alkenyleneoxy or

butadienediyl group, where these bridges for their part may be partially or fully halogenated and/or may carry one to three of the following radicals:

- C_1 - C_4 -alkyl, C_1 - C_4 -haloalkyl, C_1 - C_4 -alkoxy, C_1 - C_4 -haloalkoxy
and C_1 - C_4 -alkylthio;

A is $C=O$, $C=S$ or SO_2 ;

R^1 is C_2 - C_{10} -alkyl, C_1 - C_{10} -haloalkyl, C_3 - C_{10} -alkenyl, C_3 - C_{10} -haloalkenyl, C_3 - C_{10} -alkynyl or C_3 - C_{10} -haloalkynyl, C_3 - C_{10} -cycloalkyl, C_3 - C_{10} -cycloalkenyl C_3 - C_{10} -cycloalkynyl, or phenyl or naphthyl,

5- or 6-membered heterocyclyl, containing, in addition to carbon ring members, one to three nitrogen atoms and/or one oxygen or sulfur atom or one or two oxygen and/or sulfur atoms or

5-membered hetaryl, containing one to four nitrogen atoms or one to three nitrogen atoms and one sulfur or oxygen atom or

6-membered hetaryl, containing one to four nitrogen atoms;

where the cyclic groups may carry one to four radicals R^a ;

R^2 is hydrogen;

R^3 is hydrogen, nitro, cyano, $N(R')_2$, C_1 - C_4 -alkyl, C_1 - C_4 -haloalkyl, C_1 - C_4 -alkoxy, C_1 - C_4 -haloalkoxy, C_2 - C_4 -alkenyl, C_2 - C_4 -haloalkenyl, C_2 - C_4 -alkynyl or C_2 - C_4 -haloalkynyl, where

R' independently of one another are hydrogen or C_1 - C_4 -alkyl;

or R^2 and R^3 together are a group

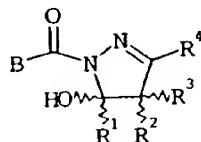
=O, =S or =N-O-R⁵, where

R⁵ is hydrogen, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₃-C₆-alkenyl, C₃-C₆-haloalkenyl, C₃-C₆-alkynyl or C₃-C₆-haloalkynyl;

R⁴ is hydrogen, halogen, nitro, cyano, N(R')₂, C₁-C₄-alkyl, C₁-C₄-haloalkyl, COOR', hetaryl or heterocyclyl [;

for controlling harmful fungi].

2. (amended) A 5-hydroxypyrazoline of the formula IA [as set forth in claim 1],



IA

in which in case a:

R³ is nitro, cyano, N(R')₂, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy, C₂-C₄-alkenyl, C₂-C₄-haloalkenyl, C₂-C₄-alkynyl or C₂-C₄-haloalkynyl;

or R² and R³ together are a group

=O, =S or =N-O-R⁵,

R⁴ is hydrogen, halogen, nitro, cyano, N(R')₂, C₁-C₄-alkyl, C₁-C₄-haloalkyl or heterocyclyl;

and B, R¹ and R² are each as defined in claim 1, or

in case b:

B is naphthyl, heterocyclyl, hetaryl or substituted phenyl, where the cyclic groups can be substituted by R^a, and

R³ is hydrogen,

R⁴ is hydrogen, halogen, nitro, cyano, N(R')₂, C₁-C₄-alkyl, C₁-C₄-haloalkyl or heterocyclyl;

and R¹ and R² are each as defined in claim 1:

where R⁴ is not methyl if R¹ is [methyl] tert-butyl or phenyl and the group B is phenyl which is substituted by 3-bromo, 4-halo, 4-methyl, 4-methoxy, 4-nitro, 4-dimethylamino or 4-fluoro-3-methyl, and

where R⁴ is not methyl or [tert-butyl] CF₃ if R¹ is CF₃, C₃F₇, C₆F₁₃ [or] C₈F₁₇, or tert-butyl R² and R³ are hydrogen and the group B is phenyl which is [unsubstituted or] substituted by 4-bromo, 4-methyl, 4-methoxy or 4-nitro, and

where R⁴ is not thienyl if R¹ is phenyl which is unsubstituted or substituted by 4-chloro, 4-methyl or 4-methoxy, R² and R³ are hydrogen and B is chlorophenyl, and

where R⁴ is not ethyl if both the group B and R¹ are 4-fluorophenyl, or

in case c:

B is unsubstituted phenyl,

R¹ is phenyl or naphthyl, heterocyclyl or hetaryl, where the cyclic groups can be substituted by R^a,

C₃-C₁₀-cycloalkyl, C₃-C₁₀-cycloalkenyl C₃-C₁₀-cycloalkyny

n-propyl, C₄-C₁₀-alkyl, CHCl₂, CH₂C1, CC1₃, CHF₂, CF₂H, CF₂C1, CFC1₂,

C₂-C₁₀-haloalkyl, C₃-C₁₀-alkenyl, C₃-C₁₀-haloalkenyl, C₃-C₁₀-alkynyl or C₃-C₁₀-haloalkynyl;

R² is hydrogen;

R³ is hydrogen, nitro, cyano, amino, methylamino, dimethylamino, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy, C₂-C₄-alkenyl, C₂-C₄-haloalkenyl, C₂-C₄-alkynyl or C₂-C₄-haloalkynyl,

or R² and R³ together are a group

=O, =S or =N-O-R⁵, and

R⁴ is hydrogen, halogen, nitro, cyano, N(R')₂, C₁-C₄-alkyl, C₁-C₄-haloalkyl or heterocyclil;

where R¹ is not tert-butyl if R⁴ is CF₂H and R⁴ is not methyl if R¹ is phenyl.

3. (amended) A 5-hydroxypyrazoline of [the] formula IB [as set forth in claim 1],



in which

A' is C=S or SO₂

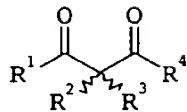
excluding compounds in which A' is C=S, R¹ [and R⁴ are methyl] is unsubstituted or p-CH₃-, p-Br- or -p-NO₂-substituted phenyl, R⁴ is methyl, R² is hydrogen and R³ is hydrogen, isopropyl or isobutyl and B is phenyl or 4-methoxyphenyl.

4. (amended) A process for preparing compounds of the formula IA as claimed in claim 2, which comprises reacting a hydrazine of [the] formula II,



in which B is as defined in claim 2,

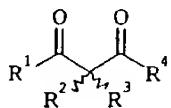
with a diketone of [the] formula III,



III

in which the substituents are each as defined in claim 2.

5. (amended) A process for preparing compounds of [the] formula IB [as claimed in claim 3,]



III

in which A' is C=S,

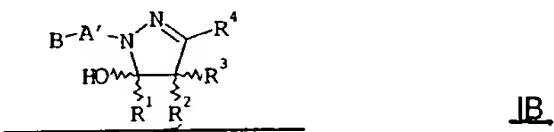
where B, R¹, R², R³ and R⁴ are as defined in claim 1,

excluding compounds in which R¹ is unsubstituted or p-CH₃-, p-Br- or -p-NO₂-

substituted phenyl, R⁴ is methyl, R² is hydrogen and R³ is hydrogen, isopropyl or
isobutyl and B is phenyl or 4-methoxyphenyl,

which comprises reacting compounds of the formula I as set forth in claim 1, in which A is C=O, with Lawesson's reagent.

6. A process for preparing compounds of [the] formula IB [as claimed in claim 3,]



in which A' is SO₂,